

IN THE CLAIMS:

1. (Currently Amended) A method for encoding video signals, comprising the steps of:

receiving a progressive video bitstream comprising reference frames and non-reference frames, each having an initial temporal reference in accordance with an initial frame sequence structure, the reference frames excluding any B frames;

remapping the temporal references of only the reference frames while ignoring the non-reference frames to provide backwards compatibility of the reference frames for a subsequent MP@ML decoding process despite a presence of the non-reference frames; and

packetizing the reference frames with a base packet-identifier (PID) and the non-reference frames with an enhancement PID, to provide base and enhancement transport bitstreams, respectively, such that packets of the base transport bitstream are capable of being extracted based on the base PID and decoded in the subsequent MP@ML decoding process to provide an MP@ML decoded video bitstream suitable for display on standard definition television ("SDTV") systems, and such that the packets of the base transport bitstream are capable of being extracted based on the base PID and packets of the enhancement transport bitstream are capable of being extracted based on the enhancement PID and combined in a subsequent MP@HL decoding process to provide an MP@HL decoded video bitstream suitable for display on high definition television ("HDTV") systems.

2. (Previously Presented) The method of claim 1 wherein only packets having the base PID are extracted and decoded to provide an MP@ML decoded video bitstream.

3. (Previously Presented) The method of claim 1 wherein packets having the base PID and packets having the enhancement PID are extracted and decoded to provide the base and enhancement bitstreams, respectively, which are combined to provide an MP@HL decoded video bitstream.

4. (Original) The method of claim 1, wherein said reference frames comprise I and P frames and said non-reference frames comprise B frames.

5. (Currently Amended) A method for encoding video signals, comprising the steps of:

receiving a progressive video bitstream comprising reference frames and non-reference frames, each having an initial temporal reference in accordance with an initial frame sequence structure, the reference frames excluding any B frames;

remapping the temporal references of only the reference frames so that the reference frames are all consecutively numbered while ignoring the non-reference frames to provide backwards compatibility of the reference frames for a subsequent MP@ML decoding process despite a presence of the non-reference frames; and

packetizing the reference frames with a base packet-identifier (PID) and the non-reference frames with an enhancement PID, to provide base and enhancement transport bitstreams, respectively, such that packets of the base transport bitstream are capable of being extracted based on the base PID and decoded in the subsequent MP@ML decoding process to provide an MP@ML decoded video bitstream suitable for display on standard definition television ("SDTV") systems, and such that the packets of the base transport bitstream are capable of being extracted based on the base PID and packets of the enhancement transport bitstream are capable of being extracted based on the enhancement PID and combined in a subsequent MP@HL decoding process to provide an MP@HL decoded video bitstream suitable for display on high definition television ("HDTV") systems.

6. (Original) The method of claim 1, wherein each PID is a service channel identifier (SCID).

7. (Currently Amended) An apparatus for encoding video signals, comprising:

a remapper for receiving a progressive video bitstream comprising reference frames and non-reference frames, each having an initial temporal reference in accordance with an initial frame sequence structure, the reference frames excluding any B frames, and for remapping only the temporal references of the reference frames while ignoring the non-reference frames to provide backwards compatibility of the reference frames for a subsequent MP@ML decoding process despite a presence of the non-reference frames;

a transport packetizer for packetizing the reference frames with a base packet-identifier (PID) and the non-reference frames with an enhancement PID, to provide base and enhancement transport bitstreams, respectively; ~~and~~, such that packets of the base transport

bitstream are capable of being extracted based on the base PID and decoded in the subsequent MP@ML decoding process to provide an MP@ML decoded video bitstream suitable for display on standard definition television ("SDTV") systems, and such that the packets of the base transport bitstream are capable of being extracted based on the base PID and packets of the enhancement transport bitstream are capable of being extracted based on the enhancement PID and combined in a subsequent MP@HL decoding process to provide an MP@HL decoded video bitstream suitable for display on high definition television ("HDTV") systems.

8. (Previously Presented) The apparatus of claim 7 wherein said decoder is an MP@ML decoder for extracting and decoding only packets having the base PID to provide an MP@ML decoded video bistream.

9. (Previously Presented) The apparatus of claim 7 wherein said decoder is an MP@HL decoder for extracting and decoding packets having both the base PID and the enhancement PID to provide the base and enhancement bitstreams for combining to provide an MP@HL decoded video bistream.

10. (Original) The apparatus of claim 7, wherein said reference frames comprise I and P frames and said non-reference frames comprise B frames.

11. (Currently Amended) An apparatus for encoding video signals, comprising:
a remapper for receiving a progressive video bitstream comprising reference frames and non-reference frames, each having an initial temporal reference in accordance with an initial frame sequence structure, the reference frames excluding any B frames, and for remapping the temporal references of only the reference frames while ignoring the non-reference frames so that the reference frames are all consecutively numbered and to provide backwards compatibility of the reference frames for a subsequent MP@ML decoding process despite a presence of the non-reference frames; and

a transport packetizer for packetizing the reference frames with a base packet-identifier (PID) and the non-reference frames with an enhancement PID, to provide base and enhancement transport bitstreams, respectively, such that packets of the base transport bitstream are capable of being extracted based on the base PID and decoded in the subsequent MP@ML decoding process to provide an MP@ML decoded video bitstream suitable for

display on standard definition television ("SDTV") systems, and such that the packets of the base transport bitstream are capable of being extracted based on the base PID and packets of the enhancement transport bitstream are capable of being extracted based on the enhancement PID and combined in a subsequent MP@HL decoding process to provide an MP@HL decoded video bitstream suitable for display on high definition television ("HDTV") systems.

12. (Original) The apparatus of claim 7, wherein each PID is a service channel identifier (SCID).

13-14. (Cancelled)

15. (Previously Presented) The method of Claim 5 wherein said reference frames consist of I and P frames and said non-reference frames consist of B frames.

16. (Previously Presented) The method of Claim 5 wherein each PID is a service channel identifier (SCID).

17-18. (Cancelled)

19. (Previously Presented) The apparatus of Claim 11 wherein said reference frames consist of I and P frames and said non-reference frames consist of B frames.

20. (Previously Presented) The apparatus of Claim 11 wherein each PID is a service channel identifier (SCID).

21. (Previously Presented) The method of claim 1, wherein the base transport bitstream is backwards compatible with a MP@ML decoder irrespective of a presence of the enhancement layer.

22. (Previously Presented) The method of claim 5, wherein the base transport bitstream is backwards compatible with a MP@ML decoder irrespective of a presence of the enhancement layer.

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23. (Previously Presented) The apparatus of claim 7, wherein the base transport bitstream is backwards compatible with a MP@ML decoder irrespective of a presence of the enhancement layer.

24. (Previously Presented) The apparatus of claim 11, wherein the base transport bitstream is backwards compatible with a MP@ML decoder irrespective of a presence of the enhancement layer.